IN THE CLAIMS

Please amend claim 1 and cancel claims 11-12 as follows:

1. (CURRENTLY AMENDED) A switch matrix for coupling an uplink beam to a demodulator, comprising:

an input module, the input module having a plurality of inputs at least equal to a number of cells in a frequency reuse pattern, the inputs receiving at least one uplink beam, and a plurality of outputs, the plurality of outputs at least equal to a number of subbands in the uplink beam, wherein the input module comprises at least one power splitter, wherein a number of power splitters is at least equal to the number of cells in the frequency reuse pattern, wherein each power splitter splits each input into a plurality of substantially equal power outputs, a number of power outputs at least equal to the number of subbands; and

an output module, the output module coupled to the input module, for selectively coupling the outputs from the input module to an output of the output module, the output of the output module coupled to a demodulator thereto.

2. (ORIGINAL) The switch matrix of Claim 1, wherein the output module is directly coupled to the input module.

3. (ORIGINAL) The switch matrix of Claim 1, wherein the input module comprises redundant modules.

4. (ORIGINAL) The switch matrix of Claim 1, wherein the input module accepts uplink beams of different polarizations.

5. (ORIGINAL) The switch matrix of Claim 4, wherein the input module accepts uplink beams of a single polarization.

6. (ORIGINAL) A switch matrix for coupling an uplink beam to a demodulator in a satellite system, wherein the satellite system receives input from cells in a cell pattern, comprising:

(a) a plurality of input modules, each having a plurality of inputs at least equal to a number of cells in a reuse pattern for the satellite system, each input module comprising:

(1) a plurality of power splitters, wherein the plurality of power splitters is at least equal to the number of cells in the reuse pattern for the satellite system, wherein each power splitter splits each input into a plurality of substantially equal power outputs, a number of power outputs at least equal to a number of subbands used by the satellite system; and

(2) a plurality of switch modules, coupled to the plurality of power splitters, each switch module accepting a plurality of inputs at least equal to the number of cells in the reuse pattern for the satellite system, the plurality of switch modules at least equal to the number of subbands used by the satellite system; and

(b) a plurality of output modules, coupled to the input modules through the plurality of the switch modules, each having a plurality of inputs at least equal to the number of cells in the cell pattern, comprising:

(1) a first set of output matrices, each output matrix in the first set of output matrices having a plurality of inputs at least equal to the number of subbands used by the satellite system; and

(2) a second set of output matrices, coupled to the first set of output matrices, each output matrix in the second set of output matrices having a plurality of outputs at least equal to a number of demodulators used by the satellite system in each subband.

7. (ORIGINAL) The switch matrix of Claim 6, wherein each output module is directly coupled to the input modules.

8. (ORIGINAL) The switch matrix of Claim 6, wherein the input modules comprise redundant modules.

9. (ORIGINAL) The switch matrix of Claim 6, wherein the input modules accept uplink beams of different polarizations.

10. (ORIGINAL) The switch matrix of Claim 6, wherein the input modules accept uplink beams of a single polarization.

11. (CANCELED)

12. (CANCELED)